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DESCRIPTION OF A NEW SPECIES OF BEACH MOUSE FROM FLORIDA

BY ARTHUR H. HOWELL

The group of mice typified by the oldfield mouse (*Peromyscus polionotus*) is a plastic group, occupying a rather limited area in Georgia, Alabama, and Florida, but splitting into a number of well-marked forms. In the interior these mice live chiefly in sandy fields, either cultivated or uncultivated, and on the coast occupy the sandy ocean beaches where the vegetation consists chiefly of sea oats (*Uniola* sp.) and scattering clumps of bushes.

In Florida, five forms are at present recognized, four on the mainland and one on Anastasia Island (opposite St. Augustine). Osgood¹ gives all of them the rank of subspecies and (with the possible exception of *phasma*) this seems to be the logical course, but too little collecting has been done to permit of defining exactly the ranges of the various races. In general, however, we know that typical *polionotus* occupies southern Georgia, the greater part of eastern Alabama, and extreme northern Florida; *niveiventris* is apparently confined to the ocean beaches on the Atlantic coast from Hillsboro Inlet north to Mosquito Inlet; *rhoadsi* occupies the western side of the peninsula in the region north of Tampa Bay and possibly ranges most of the way across to the Atlantic side, probably intergrading with both *niveiventris* and *polionotus*; *albifrons* is known from the region around Choctawhatchee Bay, extreme western Florida, and from the ocean beaches in southeastern Alabama east of Mobile Bay; *phasma* is confined to Anastasia Island.

The discovery of a strikingly marked new species on Santa Rosa Island—a narrow sandy island about 50 miles long extending from the mouth of Pensacola Bay to the mouth of Choctawhatchee Bay—is rather surprising and of great interest. The island is separated from the mainland only by a shallow bay, in places not over a quarter of a mile wide but the species living on the island is totally unlike the form found on the nearby mainland. It is by far the palest form in the group and, unlike the races occupying the beaches of eastern Florida, is of a drab rather than a buffy tone.

The form occupying the mainland opposite Santa Rosa Island—*albifrons*—ranges also, as has been stated, over the Gulf beaches of

¹ Osgood, W. H., N. Am. Fauna no. 28, pp. 104-109, 1909.

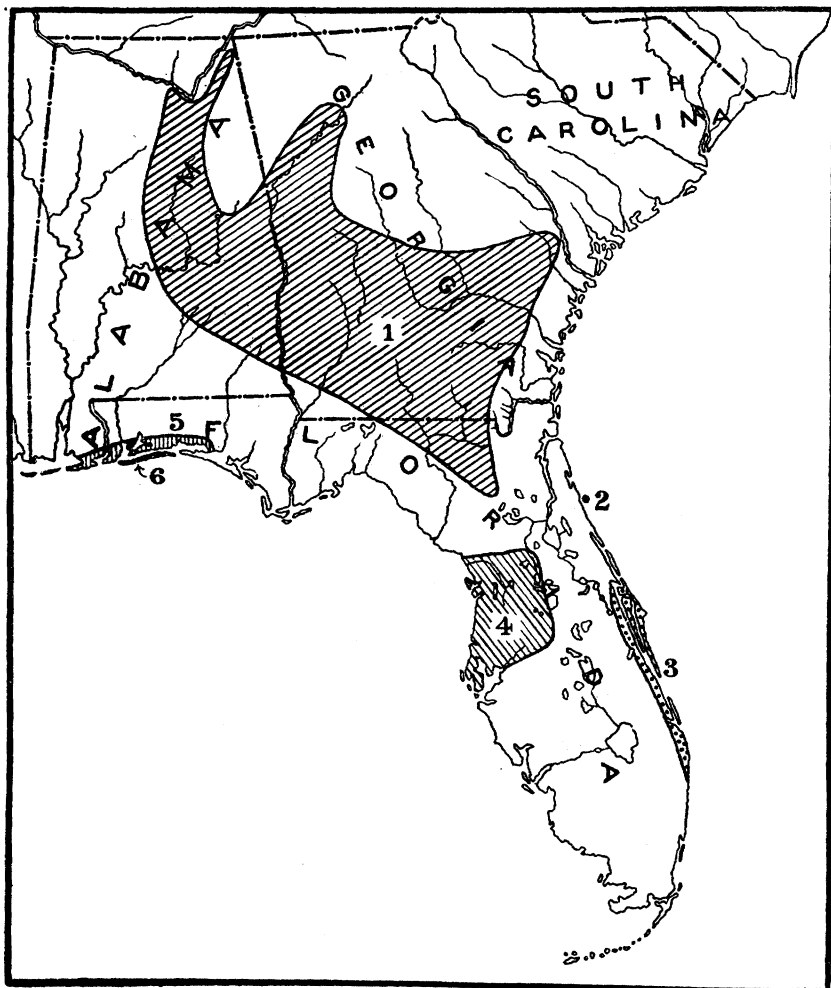


FIG. 1. PROVISIONAL MAP OF THE DISTRIBUTION OF THE OLDFIELD AND BEACH MICE *Peromyscus polionotus* group

1, *Peromyscus polionotus polionotus*; 2, *Peromyscus p. phasma*; 3, *Peromyscus p. niveiventris*; 4, *Peromyscus p. rhoadsi*; 5, *Peromyscus p. albifrons*; 6, *Peromyscus leucocephalus nobis*.

southeastern Alabama where the conditions are practically the same as on Santa Rosa Island, but the series from the Alabama beaches is practically the same as the type series from the north side of Choctawhatchee Bay (Whitfield, Florida).² The strip of beach in Alabama where the mice occur extends from the mouth of Perdido Bay westward to the mouth of Mobile Bay (the specimens being labelled "Bon Secour" and "Orange Beach"); there is direct connection between the beach and the mainland. We have, therefore, in the case of *leucocephalus* a striking illustration of the effect of isolation in perpetuating color variations, and in the case of the Alabama representatives of *albifrons* the inadequacy of a peculiar environment apart from isolation to produce similar changes.

***Peromyscus leucocephalus* sp. nov.**

WHITE-HEADED BEACH MOUSE

Type, No. 234,358, U. S. Natl. Mus., Biological Survey collection; ♀ adult, skin and skull, from Santa Rosa Island, opposite Camp Walton, Florida; collected February 26, 1920, by A. H. Howell; original number 2392.

Specific characters.—Similar to *Peromyscus polionotus phasma* but color tone of upperparts drab instead of buff; colored dorsal area narrower, the whole of the sides white; entire head and face, except crown, white; paler, more extensively white, and slightly larger than *Peromyscus p. albifrons*. Skull similar to that of *phasma*, larger than that of *albifrons*.

Description of type.—Dorsal area, occiput, and crown light drab; rest of head, face, sides, underparts, and limbs white (the hairs white to base); ears whitish at base, becoming mouse gray at tips; tail unicolor, white, with a faint tinge of drab.

Measurements.—*Type*: Total length, 140; tail vertebrae, 51; hind foot, 18.5; ear from notch (dry), 11; average of 10 adults from type locality, 128.3; 48.4; 18.2; 10.9. *Skull* (of type): Occipito-nasal length, 23.6; zygomatic breadth, 12.3; interorbital breadth, 3.6; length of nasals, 9.1; maxillary tooth row, 3.5.

Remarks.—This new mouse is abundant on Santa Rosa Island and apparently is very similar in habits to the other beach mice of this group. Its tracks and trails are seen everywhere among the sparse growth of sea oats on the ridge of dunes close to the beach and numerous small burrows evidently made by the mice are found in the face of the sand hills. A considerable number of the burrows were opened with a shovel but none of the mice could be dislodged. Most of

² They average slightly paler (less brownish) on the back than typical *albifrons* but the heads are no more whitish.

the burrows were shallow, but one was found to extend for a distance of five feet into the perpendicular face of a hard sand hill. This burrow was about an inch in diameter and inclined slightly upward from the entrance. At the terminus of the burrow was a small, flat nest of dead grasses and a little pile of shelled pods of a wild pea (*Galactia* sp.). Another burrow was about three feet long and contained a similar nest and pile of pea pods.

GENERAL NOTES

ATTACKED BY A COUGAR?

In February last, during a short expedition in Venezuela, I had an interesting encounter with a cougar which seems worth relating as a possible addition to the rather scanty evidence that this animal does not always flee from man. The incident occurred in the foothills of the Sierra de Perijà near the Rio Cogollo, some eighty miles southwest of the city of Maracaibo. This locality is on the frontier of the region held by the hostile Motilone Indians and therefore little frequented and practically in virgin condition.

At about ten o'clock one morning, after visiting a short line of traps and spending several hours hunting for deer, I started to backtrack toward camp, following in general the same fairly marked deer trails over which I had just passed. Although the forest was rather thin, passage was impeded by light but much entwined underbrush except on these trails or in occasional small grassy openings suggestive of the extensive savannas lying a few miles eastward. At a turn in the trail and on the crest of a wooded knoll, when I was halfway to camp, feeling the heat of the powerful sun, passing a spot previously reconnoitered carefully for deer, and hence not so alert as before, I was suddenly confronted by what to my astonished eyes seemed the largest cougar that ever grew. It started from behind some low bushes at my left and fifty feet, or at most sixty feet, in front of me. I did not see it rise, but it gave the impression of having been lying down. The forest was rather scraggly at this point and the trail I was following was dissolved in several small openings, in one of which the animal appeared, so the sensation of meeting it directly in the trail was lost. It started toward me immediately, growling savagely, its eyes blazing, tail lashing, and if there was any indication that it did not intend to make away with me, I failed to recognize it. It did not come on the run, however, and whether it would have done so or not I cannot say, for its long feline strides were so full of determination I did not care to await developments but promptly fired a load of buckshot full into its face. It dropped instantly and rolled behind some small bushes which prevented me from firing the second barrel. I had a flash of elation, but the glowering visage was still uppermost in my mind; so, instead of running in with my other barrel, I prudently stopped to reload the one already fired and while the gun was open the cougar rose and disappeared in a dense thicket leaving scattered drops of blood and a trail which I could not follow far without dogs. Failure to kill the beast of course caused considerable chagrin, but the unique experience was some consolation.